Serial No.: 10/747,803 Filed: December 29, 2003

Page 2 of 13

This listing of claims will replace all prior versions and listings of the claims in the application:

In the Claims:

- 1. (Currently Amended) An apparatus for depositing a thin film, the apparatus comprising:
 - a) a reaction chamber;
 - b) a reaction gas provider to supply a reaction gas and/or inert gas to the reaction chamber;
 - c) an oxidant provider to supply a first oxidant and a second oxidant to the reaction chamber; and
 - d) an air drain to exhaust gas from the apparatus;
 - e) wherein the oxidant provider is operable to supply the second oxidant to the reaction chamber using the first oxidant as a transfer gas, and the oxidant provider includes:

an oxidant generator to generate the first oxidant;

an oxidant container to store the second oxidant;

a first supply line to supply the first oxidant directly to the reaction chamber from the oxidant generator; and

a second supply line fluidly connecting the oxidant generator to the reaction chamber via the oxidant container to supply the second oxidant to the reaction chamber using the first oxidant as a transfer gas.

2. (Original) The apparatus of Claim 1 wherein the oxidant provider is further operable to supply the first oxidant to the reaction chamber without the second oxidant.

Serial No.: 10/747,803 Filed: December 29, 2003

Page 3 of 13

3. (Original) The apparatus of Claim 1 wherein the oxidant provider is operative to supply the second oxidant to the reaction chamber from a liquid source of the second oxidant.

4-34. (Cancelled).

- 35. (Currently amended) The apparatus of Claim [[34]] 1 wherein the oxidant provider is further operable to supply the first oxidant to the reaction chamber without the second oxidant.
 - 36. (Currently amended) The apparatus of Claim [[34]] <u>1</u> including:
 - a) a first process valve installed in the first supply line to selectively interrupt and permit flow of the first oxidant toward the reaction chamber; and
 - b) a first selection valve that operates inversely to the first process valve, to selectively interrupt and permit the flow of the first oxidant toward the oxidant container from the oxidant generator.
- 37. (Currently amended) The apparatus of Claim [[34]] 1_including a second process valve that operates inversely to [[the]] a first process valve to selectively interrupt and permit flow of the second oxidant toward the reaction chamber from the oxidant container.
- 38. (Currently amended) The apparatus of Claim [[34]] <u>1</u> wherein the oxidant generator is operable to generate ozone.
- 39. (Currently amended) The apparatus of Claim [[34]] $\underline{1}$ including H_2O stored in the oxidant container.
- 40. (Currently amended) The apparatus of Claim [[34]] <u>1</u> wherein the oxidant container includes:

Serial No.: 10/747,803 Filed: December 29, 2003

Page 4 of 13

- a) a canister, wherein the second oxidant is disposed in the canister up to a predetermined level;
- b) a pressurization line positioned over the second oxidant in the canister to provide the first oxidant to the canister; and
- c) a gas supply line positioned over the second oxidant in the canister to exhaust the mixture gas of the first and second oxidants from the canister;
- d) wherein the pressurization line is connected to the oxidant generator and the gas supply line is connected to the reaction chamber.
- 41. (Withdrawn) The apparatus of Claim 1 including:

an oxidant generator to generate the first oxidant;

an oxidant container, wherein the second oxidant is stored in the oxidant container;

a reaction material container, wherein the reaction gas is stored in the reaction material container;

an inert gas generator to generate the inert gas;

a drainage pump to exhaust gas from the apparatus;

a first supply line to supply the first oxidant directly to the reaction chamber from the oxidant generator;

a second supply line connecting the oxidant generator to the reaction chamber via the oxidant container to provide the second oxidant to the reaction chamber using the first oxidant as a transfer gas;

a third supply line to supply the inert gas directly to the reaction chamber from the inert gas generator;

a fourth supply line connecting the inert gas generator to the reaction chamber via the reaction material container to supply the reaction gas to the reaction chamber using the inert gas as a transfer gas; and

a drainage line diverging from the fourth supply line to exhaust the inert gas directly to the drainage pump.

Serial No.: 10/747,803 Filed: December 29, 2003

Page 5 of 13

42. (Withdrawn) The apparatus of Claim 41 including a liquid source of the second oxidant stored in the oxidant container.

43. (Withdrawn) The apparatus of Claim 41 including:

- a) a first process valve installed in the first supply line to selectively interrupt and permit flow of the first oxidant toward the reaction chamber;
- b) a first selection valve that operates inversely to the first process valve to selectively interrupt and permit flow of the first oxidant toward the oxidant container from the oxidant generator; and
- c) a second process valve that operates inversely to the first process valve to selectively interrupt and permit flow of the second oxidant toward the reaction chamber from the oxidant container.

44. (Withdrawn) The apparatus of Claim 41 including:

- a) a third process valve installed in the third supply line to selectively interrupt and permit flow of the inert gas toward the reaction chamber;
- b) a second selection valve installed in the fourth supply line upstream from the reaction material container to selectively interrupt and permit flow of the inert gas toward the reaction material container; and
- c) a drainage valve installed in the drainage line and that operates inversely to the second selection valve to selectively interrupt and permit flow of the inert gas toward the drainage pump.

45. (Withdrawn) The apparatus of Claim 41 including:

- a) a first supply valve to selectively interrupt and permit flow of the first and second oxidants toward the reaction chamber;
- b) a second supply valve to selectively interrupt and permit flow of the inert gas toward the reaction chamber; and
- c) a third supply valve to selectively interrupt and permit flow of the reaction gas that flows toward the reaction chamber.

Serial No.: 10/747,803 Filed: December 29, 2003

Page 6 of 13

- 46. (Withdrawn) The apparatus of Claim 45 including:
- a) a first bypass valve that operates inversely to the first supply valve to exhaust the first and second oxidants to the drainage pump;
- b) a second bypass valve that operates inversely to the second supply valve to exhaust the inert gas to the drainage pump; and
 - c) a third bypass valve to exhaust the reaction gas to the drainage pump.
- 47. (Withdrawn) The apparatus of Claim 41 wherein the oxidant generator is operable to generate ozone.
- 48. (Withdrawn) The apparatus of Claim 41 including H₂O stored in the oxidant container.
- 49. (Withdrawn) The apparatus of Claim 41 wherein the oxidant container comprises:
 - a) a canister, wherein the second oxidant is stored in the canister up to a predetermined level;
 - b) a pressurization line positioned over the second oxidant in the canister to provide the first oxidant to the canister; and
 - c) a gas supply line positioned over the second oxidant in the canister to exhaust the second oxidant from the canister;
 - d) wherein the pressurization line is connected to the second supply line upstream from the oxidant container, and the gas supply line is connected to the second supply line downstream of the oxidant container.
 - (Withdrawn) The apparatus of Claim 1 including:an oxidant generator to generate the first oxidant;an oxidant container to generate the second oxidant, wherein the second

oxidant is stored in the oxidant container;

Serial No.: 10/747,803 Filed: December 29, 2003

Page 7 of 13

a reaction material container, wherein the reaction gas is stored in the reaction material container;

an inert gas generator to generate the inert gas;

a drainage pump to exhaust gas from the apparatus;

a first supply line to supply the first oxidant directly to the reaction chamber from the oxidant generator;

a second supply line connecting the oxidant generator to the reaction chamber via the oxidant container to provide the second oxidant to the reaction chamber using the first oxidant as a transfer gas;

a third supply line to supply the inert gas directly to the reaction chamber from the inert gas generator; and

a fourth supply line diverging from the third supply line and connecting the inert gas generator to the reaction chamber via the reaction material container to supply the reaction gas to the reaction chamber using the inert gas as a transfer gas.

- 51. (Withdrawn) The apparatus of Claim 50 including a liquid source of the second oxidant stored in the oxidant container.
 - 52. (Withdrawn) The apparatus of Claim 50 including:
 - a) a first process valve installed in the first supply line to selectively interrupt and permit flow of the first oxidant toward the reaction chamber;
 - b) a first selection valve to selectively interrupt or permit flow of the first oxidant toward the first oxidant container from the oxidant generator; and
 - c) a second process valve that operates inversely to the first process valve to selectively interrupt and permit flow of the second oxidant to the reaction chamber from the oxidant container.
 - 53. (Withdrawn) The apparatus of Claim 50 including:
 - a) a third process valve installed in the third process line to selectively interrupt and permit flow of the inert gas toward the reaction chamber;

Serial No.: 10/747,803 Filed: December 29, 2003

Page 8 of 13

- b) a second selection valve that operates inversely to the third process valve to selectively interrupt and permit flow of the inert gas toward the reaction material container from the inert gas generator; and
- c) a fourth process valve that operates inversely to the third process valve to selectively interrupt and permit flow of the reaction gas toward the reaction chamber from the reaction container.
- 54. (Withdrawn) The apparatus of Claim 50 including:
- a) a first supply valve to selectively interrupt and permit flow of the first and second oxidants toward the reaction chamber; and
- b) a second supply valve to selectively interrupt and permit flow of the inert gas and the reaction gas toward the reaction chamber.
- 55. (Withdrawn) The apparatus of Claim 54 including:
- a) a first bypass valve that operates inversely to the first supply valve to selectively exhaust the first and second oxidants toward the drainage pump; and
- b) a second bypass valve that operates inversely to the second supply valve to exhaust the inert gas and the reaction gas toward the drainage pump.
- 56. (Withdrawn) The apparatus of Claim 50 wherein the oxidant generator is operable to generate ozone.
 - 57. (Withdrawn) The apparatus of Claim 50 including H₂O stored in the oxidant container.
- 58. (Withdrawn) The apparatus of Claim 50 wherein the oxidant container includes:
 - a) a canister, wherein the second oxidant is stored in the canister up to a predetermined level;

Serial No.: 10/747,803 Filed: December 29, 2003

Page 9 of 13

b) a pressurization line positioned over the second oxidant in the canister to provide the first oxidant to the canister; and

- c) a gas supply line positioned over the second oxidant in the canister to eject a mixture of the first and second oxidants from the canister;
- d) wherein the pressurization line is connected to the second supply line upstream from the oxidant container, and the gas supply line is connected to the second supply line downstream from the oxidant container.